

REMARKS

Applicants acknowledge with appreciation Examiner Kunemund's courtesy in conducting the November 27, 2006 telephonic interview. During the interview, Applicants' representative and Examiner Kunemund discussed the rejections of the claims in light of Sarayama et al. (JP 2002-201100) in view of Oohashi et al. (JP 2002-179413) and in light of Sarayama et al. (U.S. Patent No. 7,001,457). Applicants' representative and Examiner Kunemund discussed proposed claim amendments to independent claims 1, 18 and 25 that would clarify that the material being added is in addition to the alkaline metal, group III metal and nitrogen. Proposed claim amendments to independent claim 6 were also discussed. Finally, Examiner Kunemund confirmed that the reference listed as JP 200201100 on the Office Action should be JP 2002-201100 and also that he would include a listing of JP 2002-179413 in an updated References Cited sheet.

Claims 1-3, 6, 7, 9-12 and 18-25 have been amended. Claim 14 has been canceled and the limitations therefrom incorporated into claim 6. Claims 15-17 and 26-49 have been withdrawn. Claims 1-13 and 18-25 are currently pending in this application. Applicants reserve the right to pursue the original and other claims in this and other applications.

The Title has been amended to more accurately reflect the subject matter of the pending claims.

Claims 1-14 and 18-25 stand rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-20 of Sarayama et al. (U.S. Patent No. 7,001,457) ("Sarayama '457"). This rejection is respectfully traversed and reconsideration is respectfully requested.

Claims 1, 18 and 25 each require a material in addition to the alkaline metal, group III metal and nitrogen to be included in the solution from which the group III nitride is formed. The additional material controls certain aspects of the crystal growth. Sarayama '457 does not disclose, teach or suggest this additional material. Claim 6 requires the crystal be plate-shaped or columnar, also not disclosed, taught or suggested by Sarayama '457. Applicants also note that the claims have currently been amended and, additionally, may be further amended during subsequent prosecution. Applicants respectfully submit that the claims can be fully considered now without this issue being immediately addressed. As such, Applicants respectfully request that the double patenting rejection be withdrawn, or at least held in abeyance, until allowable subject matter is otherwise indicated.

Claims 1-3, 5 and 18-25 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Sarayama et al. (JP 2002-201100)¹ ("Sarayama JP 2002-201100") in view of Oohashi et al. (JP 2002-179413)² ("Oohashi"). This rejection is respectfully traversed and reconsideration is respectfully requested.

Claim 1 relates to a method of growing a group III nitride crystal from a solution in which an alkaline metal, a group III metal and nitrogen are dissolved along with an additional material which increases the solubility of nitrogen in the solution. Increasing the solubility of nitrogen prevents the lack of nitrogen supply which causes slow growth rate and nitrogen defects.

Claims 18 and 25 relate to a method of growing a group III nitride crystal from a solution in which an alkaline metal, a group III metal and nitrogen are dissolved

¹ As confirmed by Examiner Kunemund, the rejection should be based upon JP 2002-201100, as listed on Applicants' PTO/SB/08, and not on JP 200201100, which was a typo. Applicants have responded as such.

² Applicants note that the reference JP 2002-179413 is not listed on any PTO/SB/08 filed by Applicants or on the Examiner's Notice of References Cited. Examiner Kunemund has agreed to provide an updated Notice of References Cited including this reference.

along with an additional material which controls a ratio of growth rates in two approximately perpendicular directions. Allowing control of the ratio of growth rates makes possible control of the form or shape of the group III nitride crystal that is grown.

Sarayama JP 2002-201100 relates to a method of forming a group III nitride crystal from a solution of a group III metal and sodium with the addition of nitrogen gas. Temperature control is used to control the growth of the group III nitride crystal. Sarayama JP 2002-201100 does not disclose, teach or suggest the addition of any materials other than the group III metal, sodium, and nitrogen to the solution in order to control aspects of the growth of the group III nitride crystal. Oohashi is relied upon for disclosing the metal added to the melt can be an alkaline metal or an alkaline earth metal. (Office Action, pg. 4). Oohashi does not remedy the deficiencies of Sarayama JP 2002-201100 as to claims 1, 18 and 25.

Accordingly, claims 1, 18 and 25 are allowable over the cited combination. Claims 2, 3 and 5 depend from claim 1 and are allowable along with claim 1. Claims 19-24 depend from claim 18 and are allowable along with claim 18. Applicants respectfully request the rejection of claims 1-3, 5 and 18-25 be withdrawn and the claims allowed.

Claims 4 and 6-14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Sarayama JP 2002-201100 in view of Oohashi. This rejection is respectfully traversed and reconsideration is respectfully requested.

Claim 4 depends from claim 1, which is allowable over the cited combination for at least the reasons stated above. Accordingly, claim 4 is allowable. Applicants respectfully request the rejection of claim 4 be withdrawn and the claim allowed.

Claim 6 relates to a method of growing a group III nitride crystal by dissolving a group III nitride into a solution including an alkaline metal and recrystallizing the group III nitride to form a plate-shaped or columnar crystal.

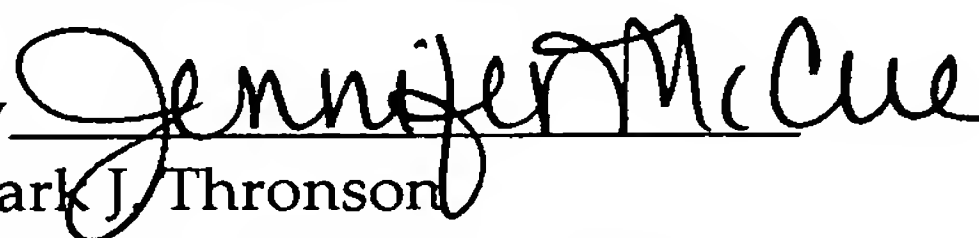
Sarayama JP 2002-201100 does not disclose, teach or suggest dissolving a group III nitride into a solution including an alkaline metal and recrystallizing the group III nitride to form a plate-shaped or columnar crystal. Oohashi is relied upon for disclosing the metal added to the melt is an alkaline metal or an alkaline earth metal. (Office Action, pg. 4). The crystals formed in Oohashi are spherical and therefore it does not remedy the deficiencies of Sarayama JP 2002-201100 as to claim 6.

Accordingly, claim 6 is allowable over the cited combination. Claims 7-13 depend from claim 6 and are allowable along with claim 6. Claim 14 has been canceled and therefore, the rejection of claim 14 is moot. Applicants respectfully request the rejection of claims 6-13 be withdrawn and the claims allowed.

In view of the above amendment, Applicants believe the pending application is in condition for allowance.

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Respectfully submitted,

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